



Stylish HD Camcorder

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Samsung's SC-HMX20C provides a compact, easy-to-use, Full HD 1080p Memory Camcorder loaded with features: Quick Start, Touch Panel LCD, HDMI-CEC, and Cradle.

Availability: May, 2008

2008 to 2007 Model Comparison

SC-HMX20C
1920 x 1080 Progressive Scan HD Recording using H.264 in 4:3 or 16:9 (60i/30p)
6.4 Megapixel CMOS
10x optical zoom
8GB built-in flash memory w/expandable SDHC/MMC+ card slot
HDMI 1.3 output (H.264) and AV input/output
Touch Panel LCD
300fps High speed capture
1 Hr. 10 Min. battery life
Remote Control Included
Easy Connect and Charging Docking Cradle
Easy cut-and-paste edits on the camcorder, plus supplied editing software for a PC
USB 2.0 PictBridge Printing
EIS Stabilization freeze action to capture sharp images
Swivel Grip

Key Sales Point

Key Selling Point	Benefits
Flash Memory	Compared to traditional recording media, flash memory is lower weight, consumes less power, is more resistant to shocks and bounces and is more environmentally friendly.
Full HD 1080p	See the most important videos, those recording your memories, in the highest resolution that can be displayed on a home television.
Swivel Grip	Hold the camcorder in the most comfortable manner for you, whether your subject is close to the ground or up in the air.



| Solution Selling

Qualifying Questions

What happened to your old camcorder? Most people will claim that it just stopped working. This will allow you to point out the durability of flash memory as a recording media.

What kind of High Definition Television do you own? Even if they don't own one now, most people are looking for one in the near future. This will allow you to point out the Full HD 1080p recording capability of the HM-X20.

Tell me about the subjects you'll be recording. If your customer mentions children, you will be able to show them how the swivel grip lets them get the camcorder to child height without breaking their back.

Presentation/Demonstration

Flash Memory: Hand the camcorder to your customer and point out how light it is. Point out that there are fewer moving parts making the camcorder both more durable and more efficient in its use of power. Finally, point out that because there is no media to buy and eventually throw out so they are saving money and the environment.

Full HD 1080p: Connect the HM-X20 to a Samsung Full HD 1080p television via HDMI; this will require that the camcorder be on it's docking station. Point out the level of detail on the television.

Swivel Grip: To demonstrate, put the camcorder into your customer's hands and ask them to imagine that they are recording a young child running toward them. As the child gets nearer, they will end up pointing the camera straight down on the top of the child's head. Then ask them to swivel the grip. Point out that the swivel grip allows them to get the camera down to "child" height and keep the face in frame.

Anynet+™: With the HM-X20 connected to a Samsung Full HD 1080p television via HDMI, hand the customer the television remote and ask them to hit the "tools" button. Then ask them to select "Anynet+: camcorder" from the options. They will then be able to operate the camcorder using the TV remote and playback any of the stored video.

Recommended Accessories

Samsung Full HD 1080p HDTV: This will allow them to see the full capabilities of the HM-X20.

HDMI Cable: They will need this to get the full resolution of the HM-X20 on their television and to use the Anynet+™ capabilities of the camcorder.

SD Memory Cards: The HM-X20 will accept up to 32GB HC-SD cards.

Carrying Case: This is the easiest way to protect this investment.

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Frequently Asked Questions (FAQ's)

Q: How long is the recording time?

A: SC-MX10 records in MPEG4 format with high compression ratio, so users can record about 8 hours in standard mode and about 2 hours in high quality on 4GB SD Card (1 hr on a 2GB card, etc.) The SC-HMX20 records at 60fps Progressive HD Video, so users can record about 90 minutes in HD mode or 6 hours in Standard Mode using the internal video.

Q: What is PC & TV Mode recording and why would I need it?

A: The SC-MX10 records in either PC frame mode at 30p or TV interlaced mode at 60i. Each format will work better on the intended display device: Progressive Scan for PC and interlaced for most TVs.

Q: Will these camcorders work with my Mac?

A: Not at this time. The included software is only for Windows PC. You are able to transfer the video files on to a Mac, but you may not be able to watch them. The issue is that while there are codecs for the MPEG-4 video formats that both the HMX-10 (H.264) and MX-10 (ASP) use, Samsung is using a different audio codec for the HMX-10: AAC. This allows for a single file that incorporates both audio and video instead of separate ones. Mac certainly supports the AAC audio format as this is the preferred format for iTunes, however, there may be issues supporting it in conjunction with the video format. For the MX-10, if your Mac has an MPEG-4 ASP codec in it, then it ought to play the video files.

Q: Why does the SC-HMX20C top out at 720p resolution? What about 1080i?

A: 720p was chosen because it provides for smoother playback effects: fast-forward, rewind and pause. With interlacing, these effects can often show sets of scan lines while scanning or shaky pauses. Progressive scan makes all of these smooth and clean.

Also, 720p actually records more information per second (see table) for smoother motion

	HD (720P/60p)	HD (1080i)
Number of pixels in horizontal	1,280	1,440 (recorded 4:3, displayed 16:9)
Number of scanning lines	720	1,080
Scanning method	Progressive	Interlace
Aspect ratio (Recorded Video)	16:9 (16:9)	16:9 (4:3)
Frames per second	60p	60i
Amount of data (NTSC)	52.3M pixel/sec (1280x720x60)	46.7M pixel/sec (1440x540x60)

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Recorded image resolution	Smoother motion	High resolution Smooth motion
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Q: What are my editing options, do I need to connect to a PC to edit?

A: Easy Cut & Paste allows you to edit scenes you want directly on the camcorder, without loading them into the PC. The included software on both models allows you to do more elaborate edits, add music and stylize your movie.

Q: I'm a YouTube fan, will this camcorder allow me to post my videos on the web?

A: The SC-MX10 is a YouTube cam. The camcorder is designed to take quick standard definition images and stills that users can easily place on the Internet in a matter of minutes. Recording are made in MPEG-4 compression to SD flash memory or the included 512MB card. The SC-MX10 includes PC software to upload your videos to websites like YouTube in MPEG4 ASP format.

Q: How easy is it for me to watch my recorded videos on my TV?

A: The SC-HMX20C has HDMI 1.3 connectivity, so you can simply connect to an HDTV for the best resolution and picture. Also, HDMI Connection with Anynet+™ enables you to control with your Samsung TV Remote. Or with either the SC-HMX20C or the SC-MX10, the included docking cradle lets you connect to any television with a composite (yellow video input) jack.

Q: What functions does the docking cradle offer?

A: With the included docking cradle, you can recharge, connect to AV or USB easily, even do all at the same time

Q: If the memory is full, how can I save and store my videos?

A: You can transfer your recorded movies to the PC via the USB 2.0 connection on the SC-MX10. The HMX20C also supports USB 2.0 at a data transfer rate of 40Mbps. Transferring a 1 hour HD movie (4GB) takes about 10 minutes.

Q: How do I playback a recorded video on my DVD, PS3 or BluRay player?

A: The editing Software provided supports transcoding & burning features so you can easily make an AVCHD disc (for HD) or DVD disc (for SD). The AVCHD disc can be played on BluRay player or PS3, and a burned DVD disc can be played on a standard DVD player.

Q: What is High Speed Capture and what is it used for?

A: On the SC-HMX20C, 300fps High Speed Capture allows you to record fast motion during a 10 second interval, by increasing the frame rate from 60 to 300 frames per second. You can analyze your golf swing, or capture motion that is too fast for the human eye to capture, for instance a hummingbirds wings.

Q: Why does the SC-HMX20C have a shorter zoom than the SC-MX10

A: This is because of the better resolution of the HMX10. This makes the CMOS Sensor (the digital "film") larger and thereby changes the optics. Due to the limitations of physics, 10x is the largest

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zoom possible without making the camcorder significantly bigger.

Q: What are MPEG-4 ASP and H.264?

A: Both ASP (Advanced Simple Profile) and H.264 are versions or “profiles” of the MPEG-4 standard. Each “profile” is balances file size, picture quality and resolution in order to optimize all three for different types of use:

- ASP is optimized for lower resolutions (non-HD) for web and streaming. This is the same format used by most digital still cameras for their movie modes.
- H.264 (also known as AVC for Advanced Video Coding) is designed for HD resolutions. It uses new compression software that offers small file sizes while maintaining a high level of picture quality.